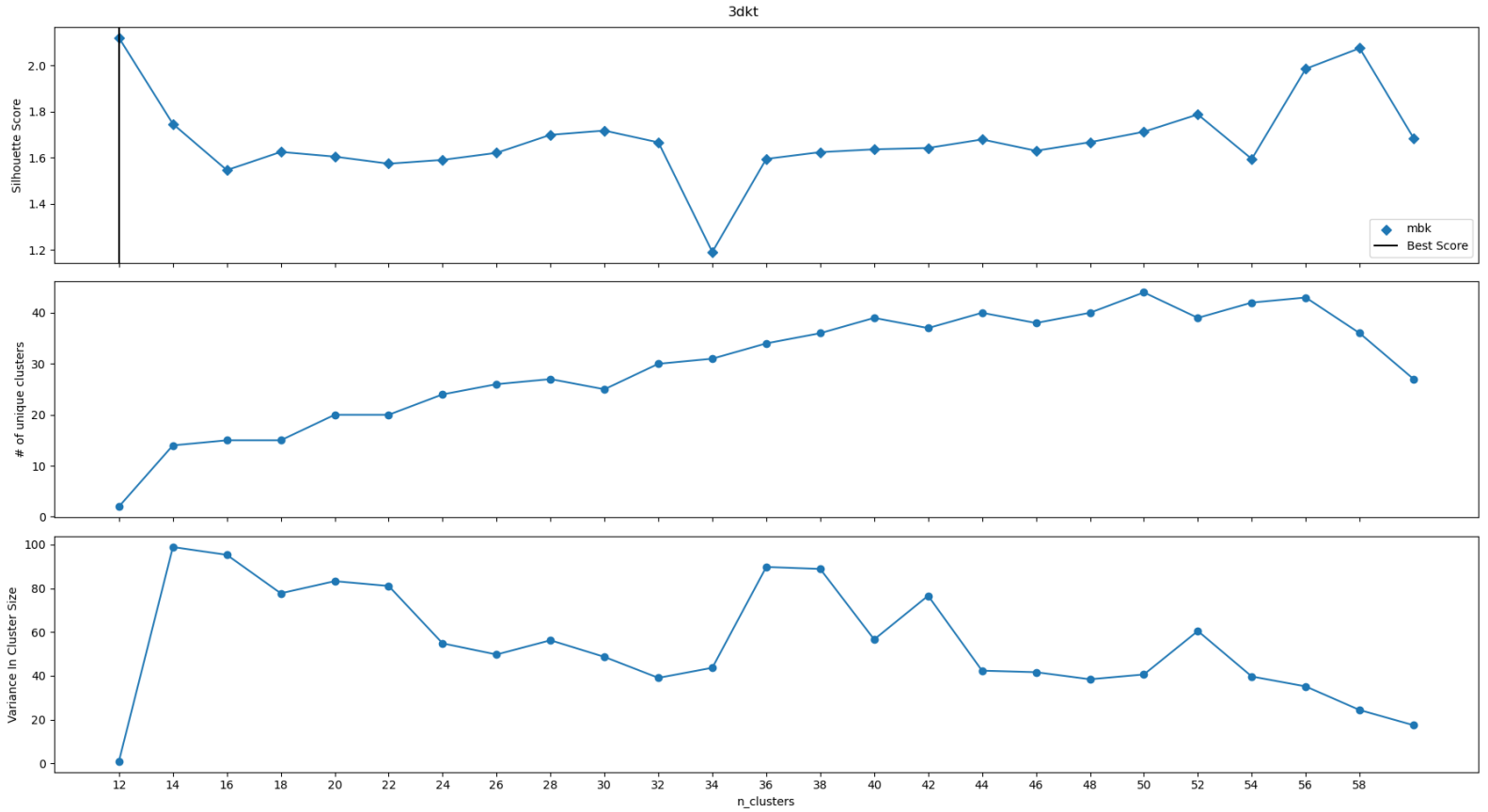
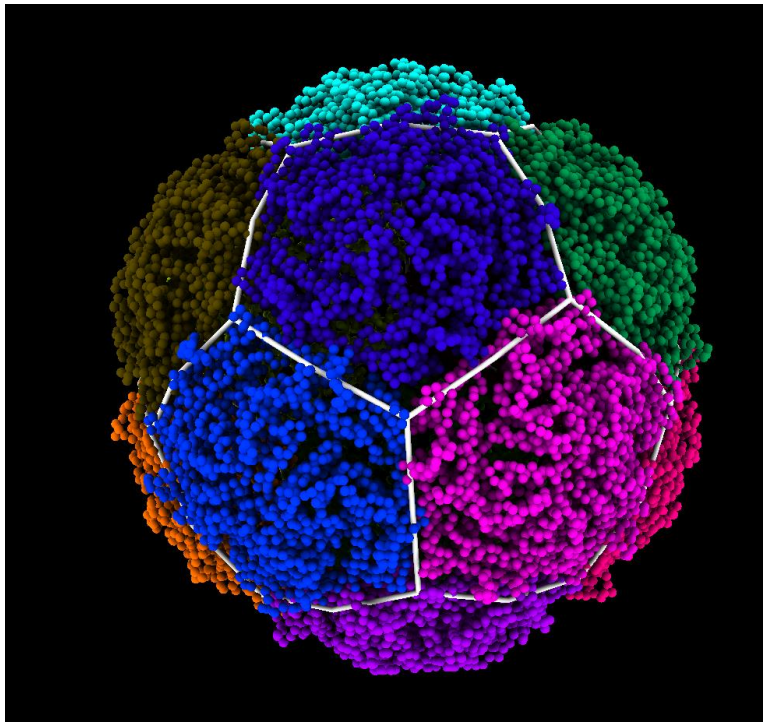
HK97 Results

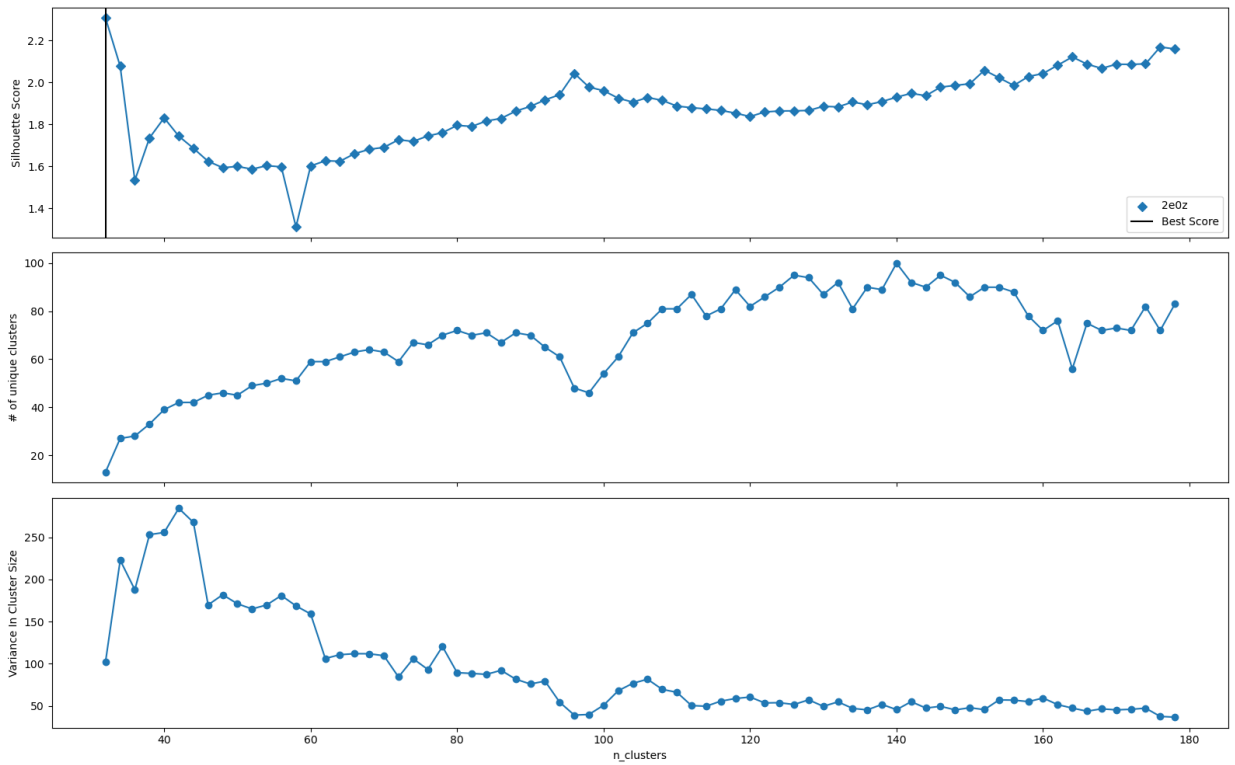
Thermotoga Maritima Encapsulin (3dkt)

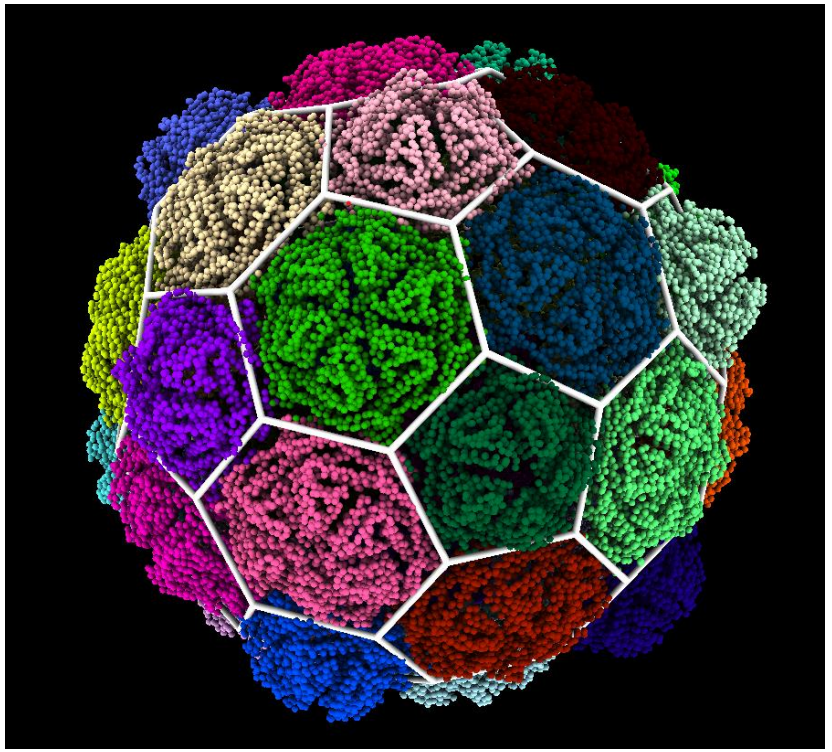




T=1 Hexagonal
12 Pentagonal Clusters Containing 5 MCPs

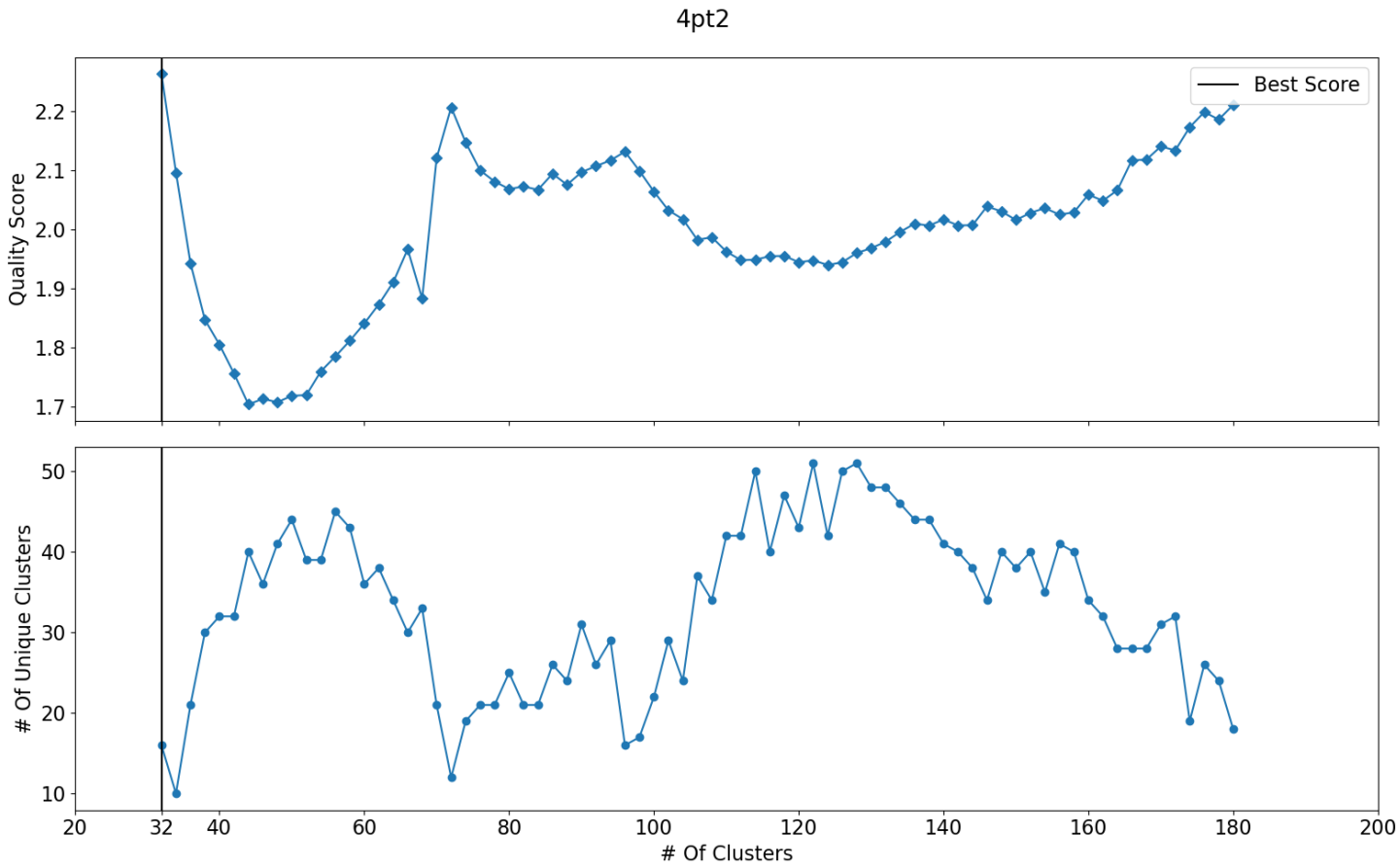
VLP From Pyrococcus Furiosus (2e0z)

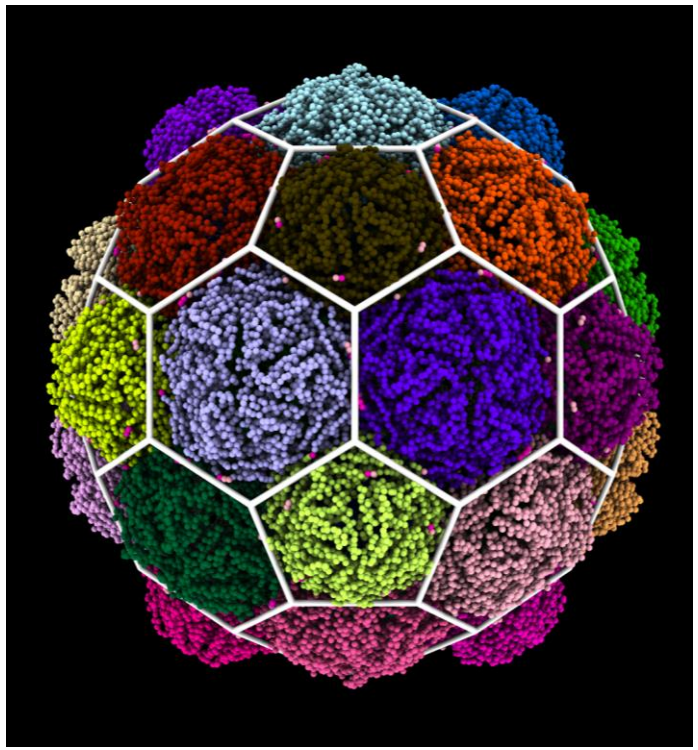




T=3 Hexagonal
12 Pentagonal Clusters containing 5 MCPs
20 Hexagonal Clusters containing 6 MCPs

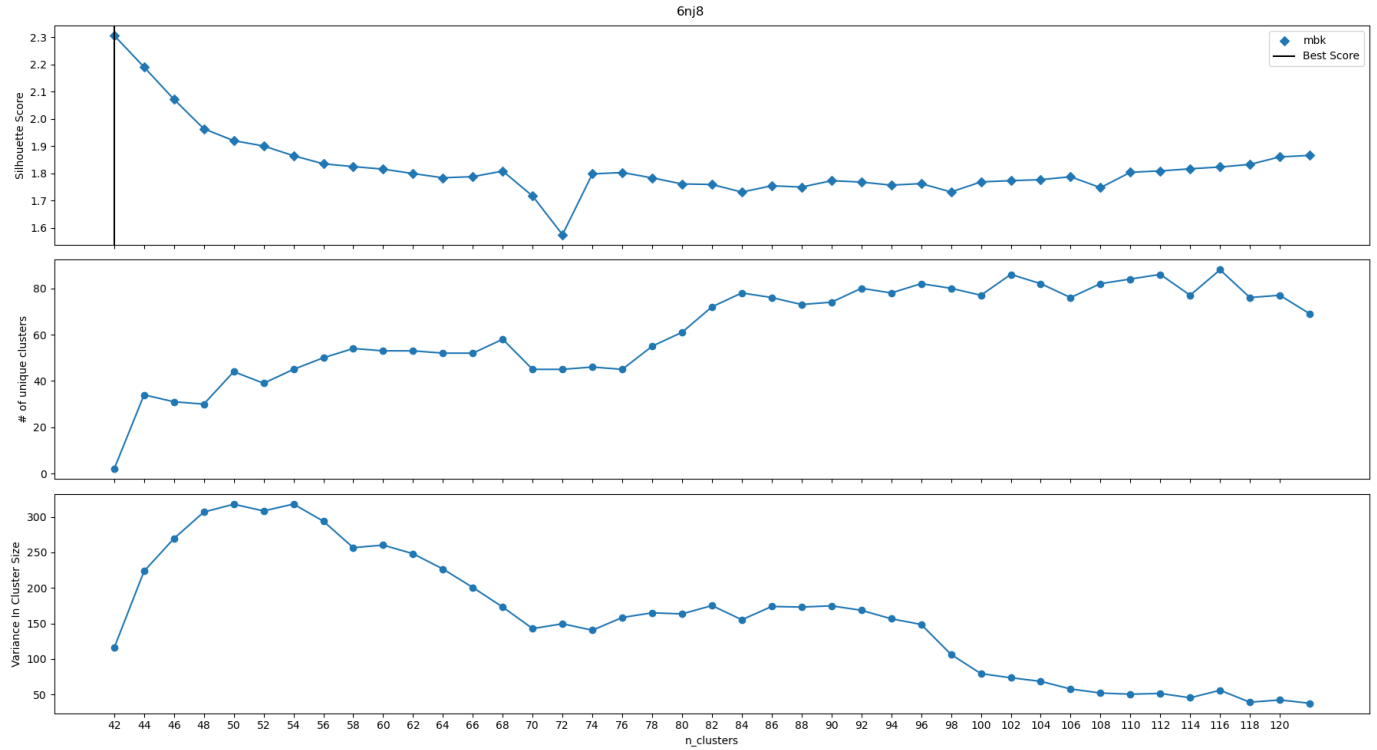
Myxococcus Xanthus Encapsulin (4pt2)

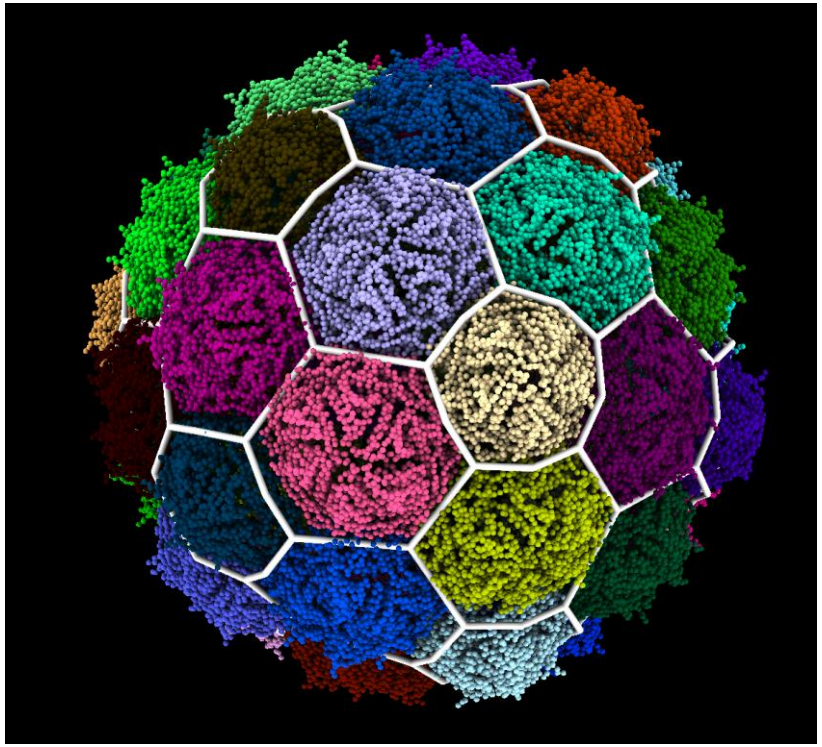




T=3 Hexagonal
12 Pentagonal Clusters containing 5 MCPs
20 Hexagonal Clusters containing 6 MCPs

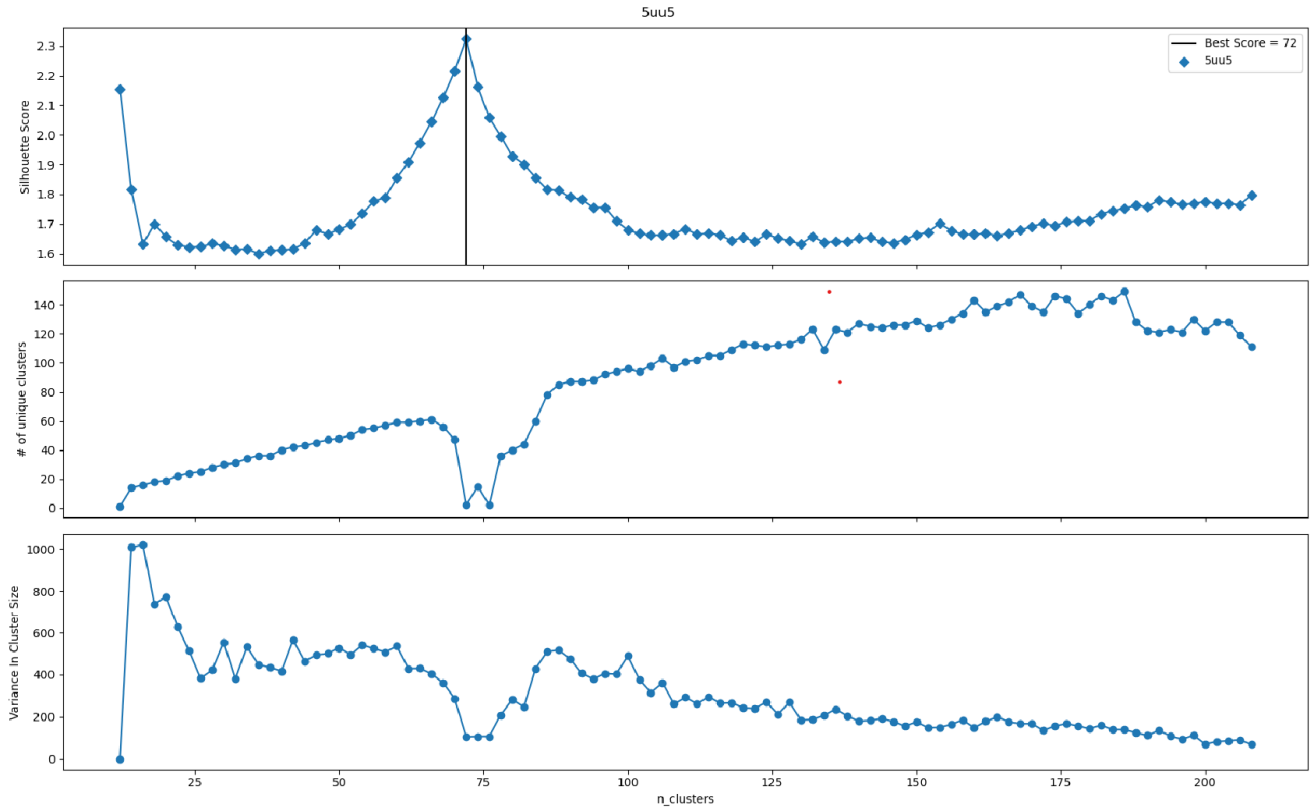
Iron Storage Encapsulin From Quasibacillus thermotolerans (6nj8)

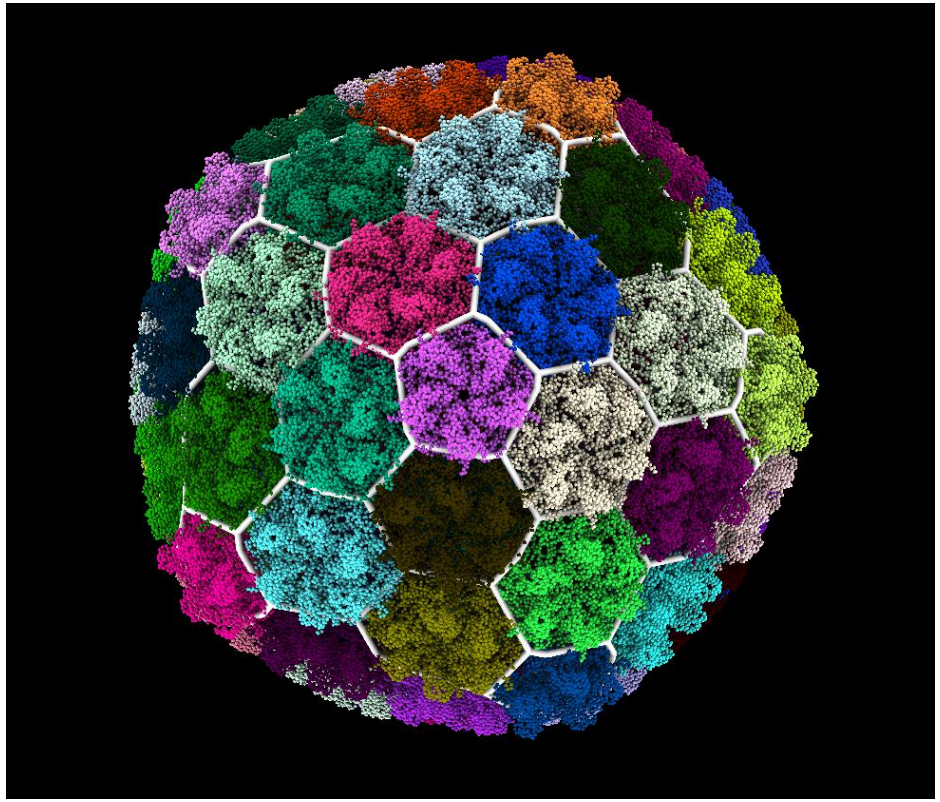




T=4 Hexagonal
12 Pentagonal Clusters containing 5 MCPs
30 Hexagonal Clusters containing 6 MCPs

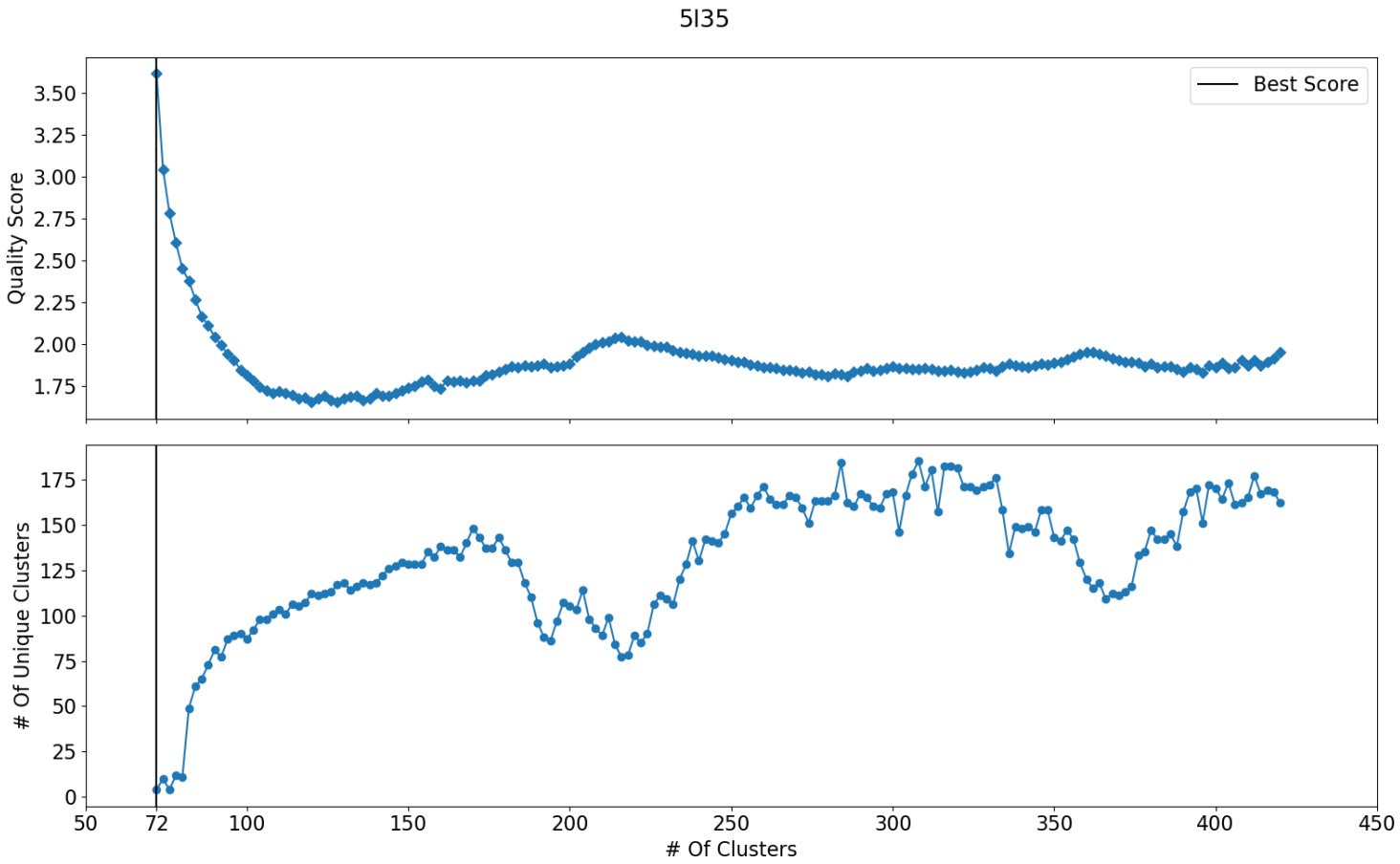
Bacteriopohage P22 Mature Virion (5uu5)

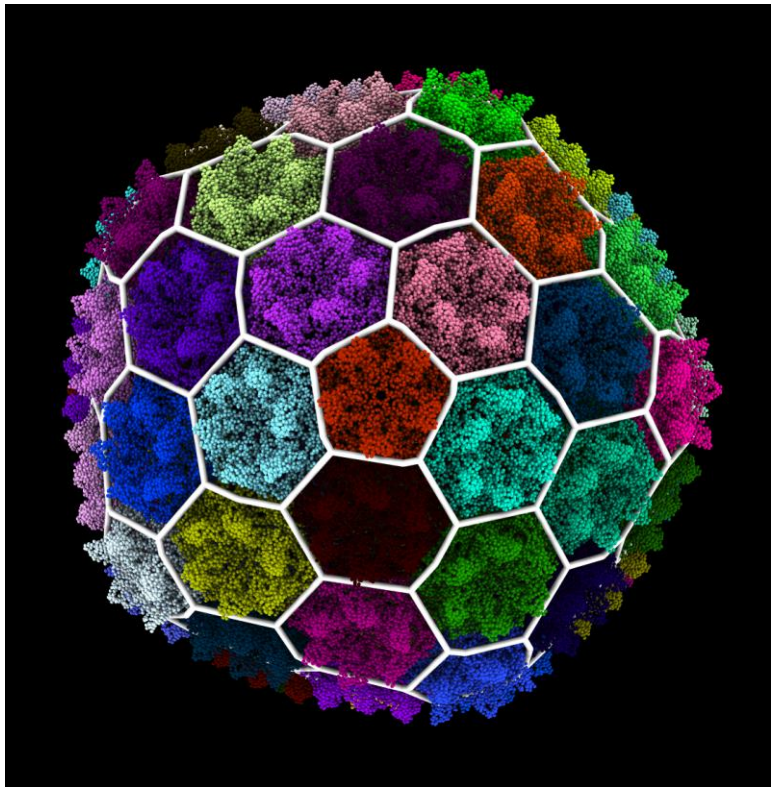




T=7 Hexagonal
12 Pentagonal Clusters containing 5 MCPs
60 Hexagonal Clusters containing 6 MCPs

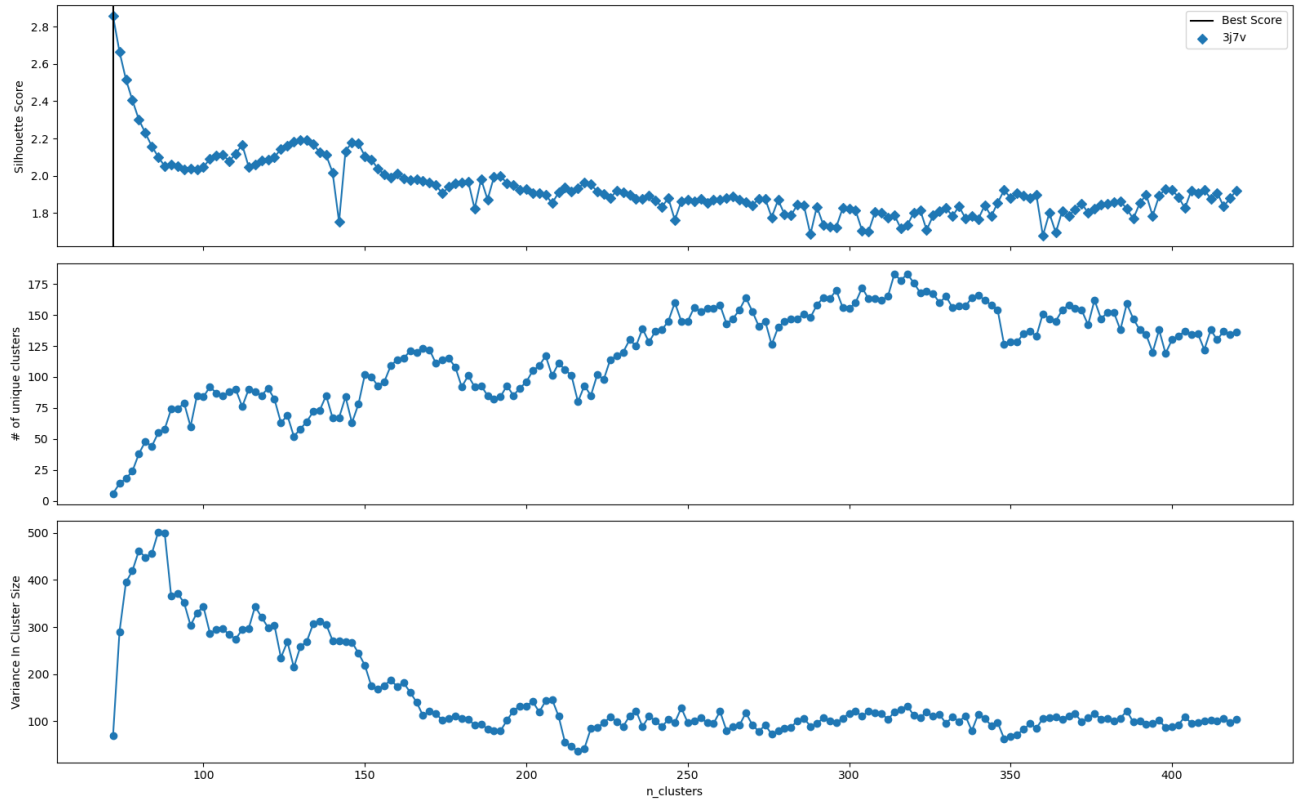
Bacteriopohage Sf6 (5I35)

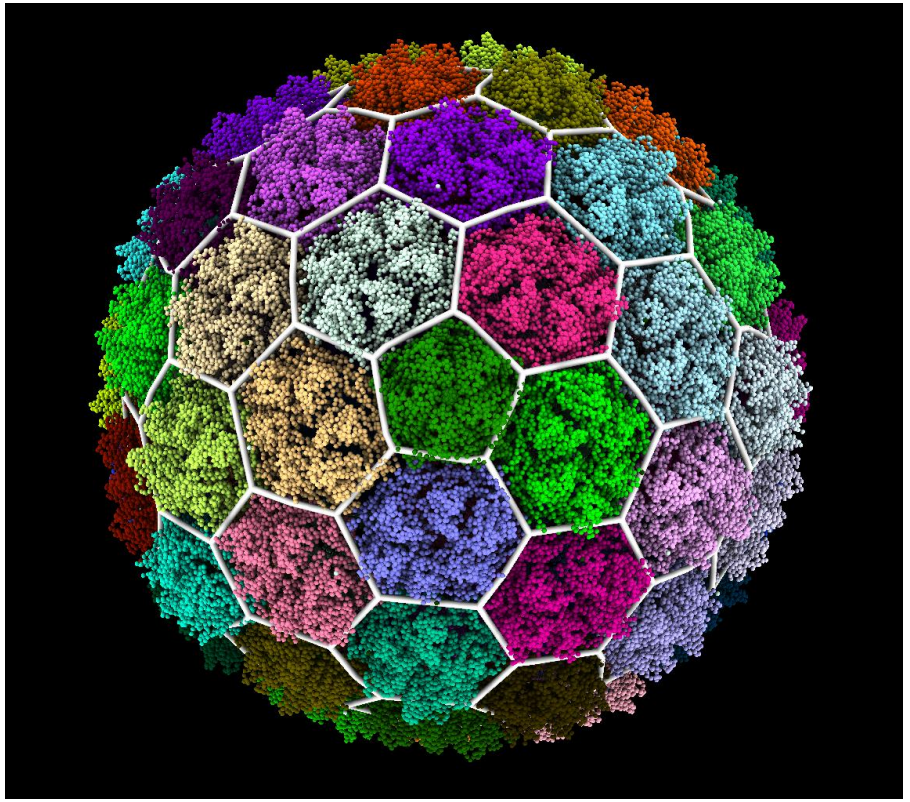




T=7 Hexagonal
12 Pentagonal Clusters containing 5 MCPs
60 Hexagonal Clusters containing 6 MCPs

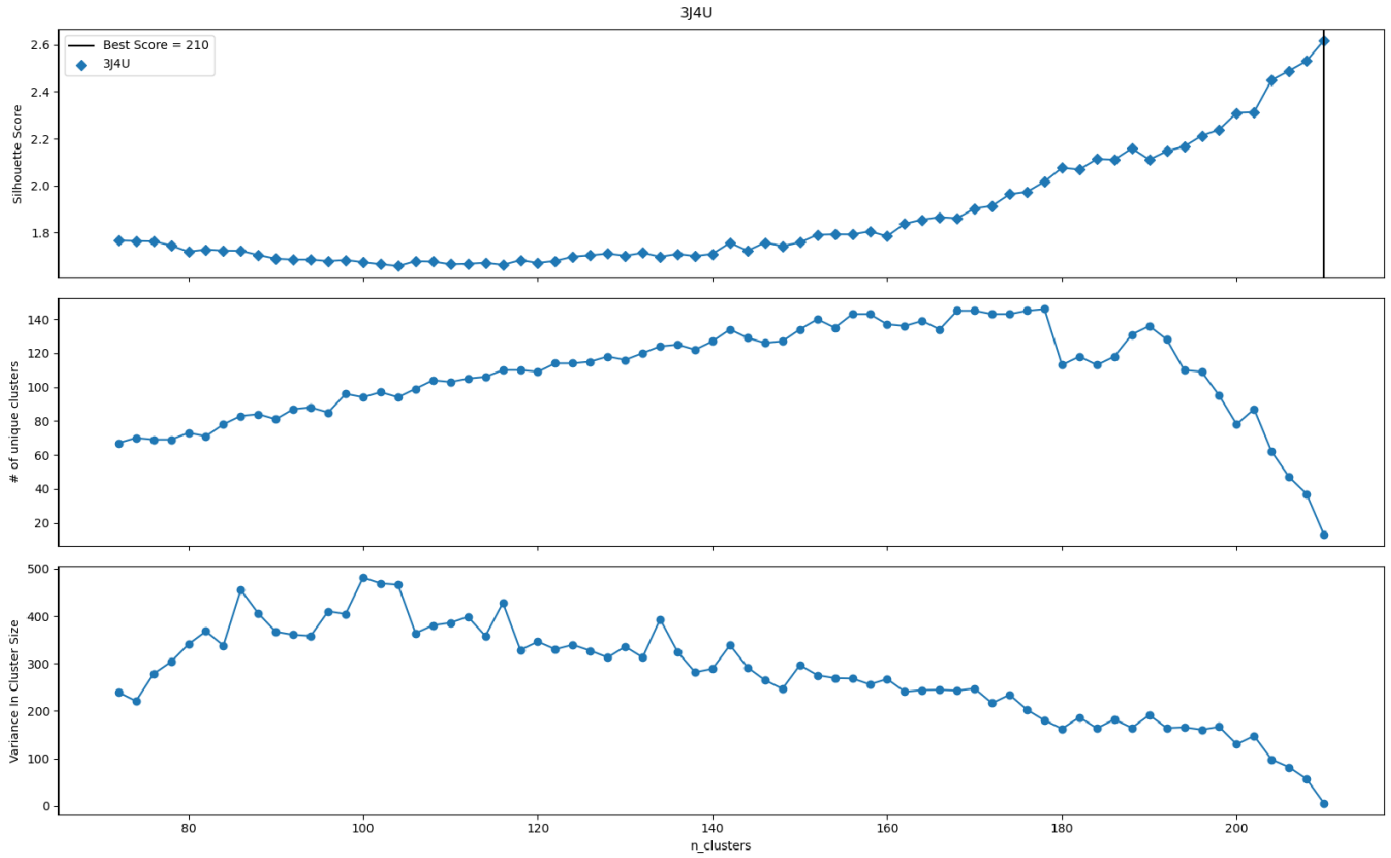
Bacteriopohage T7 Procapsid (3j7v)

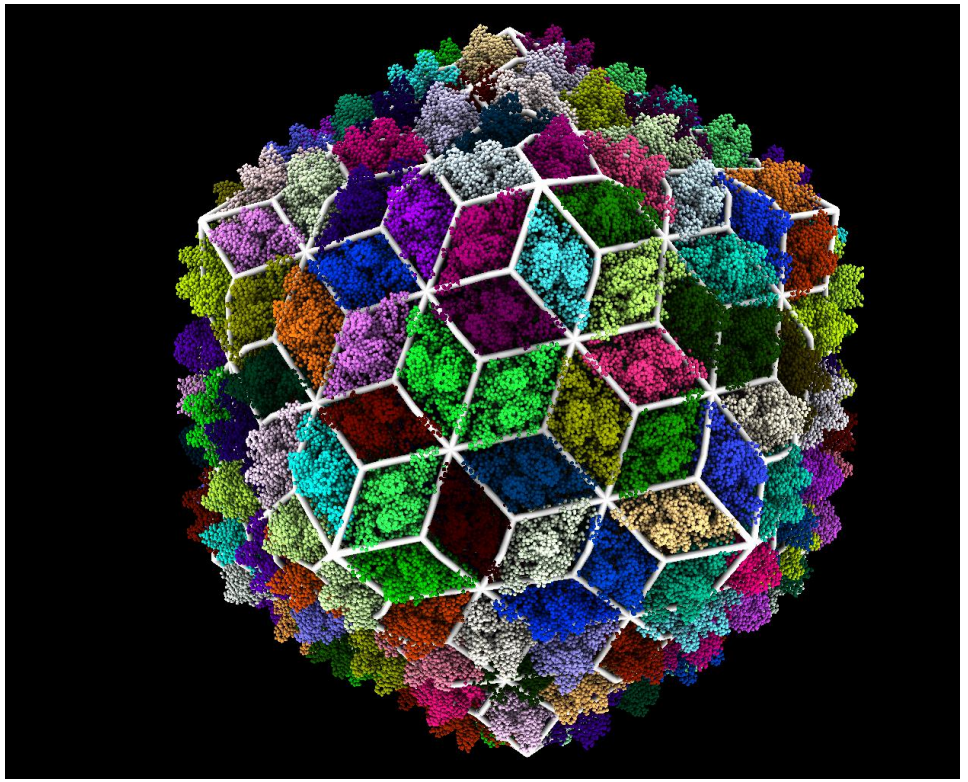




T=7 Hexagonal
12 Pentagonal Clusters containing 5 MCPs
60 Hexagonal Clusters containing 6 MCPs

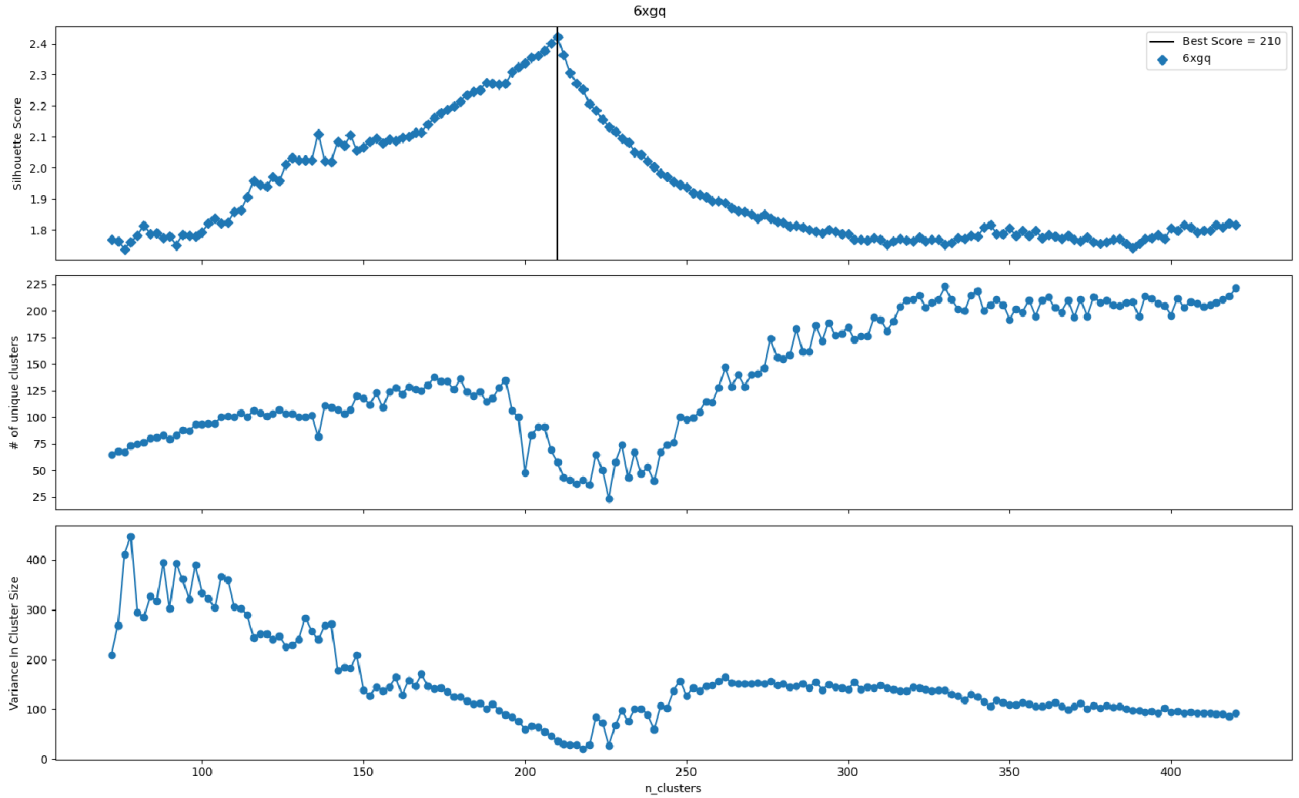
Bordetella Bacteriophage (3j4u)

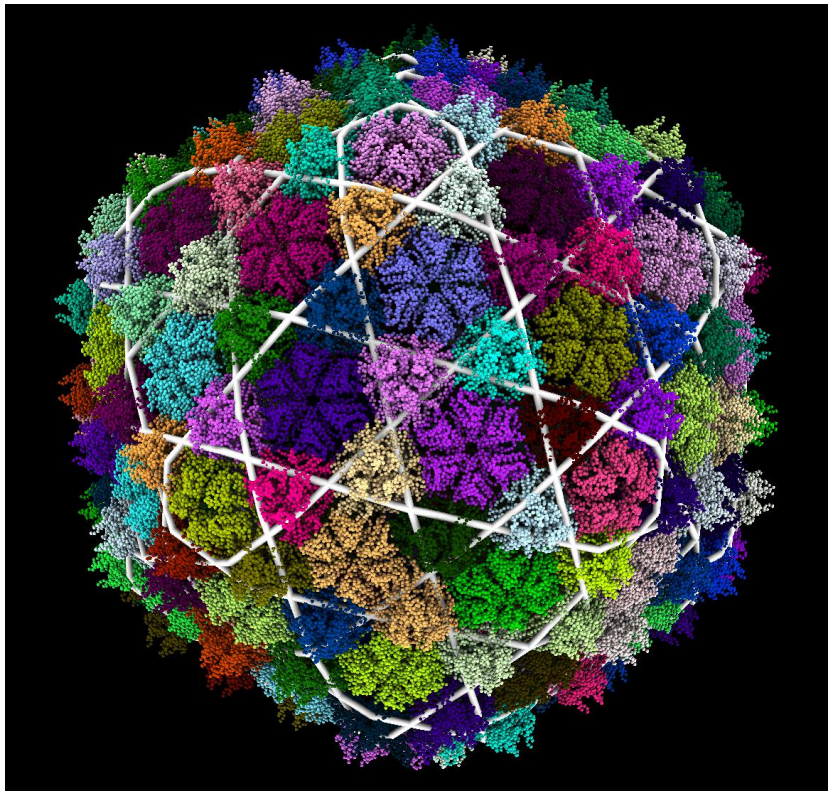




T=7 Trihex-Dual (Imperfect Clustering)
210 Clusters Containing ~2 MCPs and 2 mCPs

YSD1 Bacteriophage (6xgq)





T=7 Trihexagonal (Imperfect Clustering)
12 Pentagonal Clusters containing 5 MCPs
60 Hexagonal Clusters containing 6 MCPs
140 Triangular Clusters containing 3 mCPs and MCP Extended Domains

Discussion

- P22 lacked reinforcement proteins and was labelled as hexagonal
- Bordetella and Phage YSD1 had reinforcement proteins around the local 2-fold and 3-fold axes respectively and were labeled as trihex-dual and trihex.
- This suggests the presence and location of reinforcement proteins could determine lattice structure.
- Both Bordatella and YSD1 had error in their label assignments. The tool becomes less accurate at a large number of clusters.